



COUNTY OF SAN DIEGO  
**Great Government Through the General Management System – Quality, Timeliness, Value**  
DEPARTMENT OF HUMAN RESOURCES

CLASS SPECIFICATION

CLASSIFIED

SUPERVISING ELECTRONIC INSTRUMENT TECHNICIAN

Class No. 003870

■ CLASSIFICATION PURPOSE

To plan, direct, and coordinate the work of Electronic Instrument Technicians involved in the operation, maintenance, installation, and repair of air pollution analytical sampling and data acquisition equipment in the laboratory and field setting; and to perform related work as required.

■ DISTINGUISHING CHARACTERISTICS

This is a one-position, first-line supervisory level class in the Electronic Instrument Technician series. The Supervising Electronic Instrument Technician reports to the Chief, Air Pollution Control. Under general direction, incumbents are responsible for supervising the activities of subordinate Electronic Instrument Technicians and Air Pollution Control Aides involved in operating, maintaining, and repairing air pollution monitoring equipment.

■ FUNCTIONS

**The examples of functions listed in the class specification(s) are representative but not necessarily exhaustive or descriptive of any one position in the class(es). Management is not precluded from assigning other related functions not listed herein if such functions are a logical assignment for the position.**

Essential Functions:

1. Plans, directs, schedules, assigns, trains, and evaluates the work of subordinate Electronic Instrument Technicians involved in operating, maintaining, installing, and repairing air pollution analytical sampling and data acquisition equipment in the laboratory and field.
2. Researches equipment specifications costs and prepares approved requisitions for procurement.
3. Assists technical staff in establishing test, measurement, and analytical equipment and instrumentation specifications.
4. Provides technical guidance to technicians on monitoring air contaminants, and operating/maintaining laboratory and field equipment.
5. Inspects, maintains, repairs, adjusts, calibrates, and modifies a wide variety of air quality monitoring laboratory, and field equipment.
6. Assembles and performs acceptance checks on air monitoring stations and applications equipment.
7. Compiles and researches data and prepares technical reports.
8. Provides responsive, high quality service to County employees, representatives of outside agencies and members of the public by providing accurate, complete and up-to-date information, in a courteous, efficient and timely manner.
9. Plans and coordinates installation of new air monitoring sites and relocation of existing sites as needed.

■ KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- Electronic, mechanical, and pneumatic principles, theory, methods, and components.
- Solid-state components.
- Digital, logic, and linear circuits.
- Testing analysis techniques related to electronic instruments.
- Mathematics (formulas, exponents, powers, roots, and binary numerals).
- Safety methods and procedures applied to shop equipment repair, using flammable and compressed gas.
- Computer operations.

- Methods and techniques used in calibrating test equipment, installing stations, and testing new or specialized air monitoring equipment.
- Electronic instrument installation, interaction, and monitoring methods and techniques.
- Electrical, mechanical, and physical principles related to air quality monitoring instruments.
- Air pollution control terminology.
- Air pollution control equipment design, operation, and use.
- Supervision, training methods and techniques.
- County customer service objectives and strategies.

#### Skills and Abilities to:

- Plan, direct, schedule, assign, train, and evaluate the work of subordinate staff involved in operating, maintaining, installing, and repairing air pollution analytical sampling and data acquisition equipment in the laboratory and field.
- Research equipment specifications and costs.
- Prepare requisitions for procurement.
- Install, inspect, adjust, calibrate, test, operate, maintain, and repair air pollution monitoring and meteorological equipment and instruments.
- Operate personal computer for data retrieval and interface to evaluate station equipment.
- Provide technical guidance to departmental staff on the operation and maintenance of air pollution equipment.
- Maintain records and prepare technical reports.
- Communicate effectively with a variety of individuals representing diverse cultures and backgrounds and function calmly in adverse situations, which require a high degree of sensitivity, tact and diplomacy.
- Establish effective working relationships with management, employees, employee representatives and the public representing diverse cultures and backgrounds.
- Treat County employees, representatives of outside agencies and members of the public with courtesy and respect.
- Exercise appropriate judgment in answering questions and releasing information; analyze and project consequences of decisions and/or recommendations.

#### ■ EDUCATION/EXPERIENCE

Education, training, and/or experience that demonstrate possession of the knowledge, skills and abilities listed above. Examples of qualifying education/experience are:

1. Four (4) years of experience installing, inspecting, operating, and repairing analog and digital electronic equipment and recording devices for an industrial or public service agency. Previous experience must have included inspecting, operating, and repairing air quality monitoring equipment, OR
2. Three (3) years of experience installing, inspecting, operating, and repairing analog and digital electronic equipment and recording devices for an industrial or public service agency, AND, thirty (30) semester units of college level coursework in electronics or a closely related field. Previous experience must have included inspecting, operating, and repairing air quality monitoring equipment.

**Note:** Previous experience: 1) planning, directing, and coordinating the work of technical staff involved in operating, maintaining, installing, and repairing air pollution monitoring equipment; AND, 2) researching air pollution equipment and supply specifications and costs and recommending items for procurement is highly desirable.

#### ■ ESSENTIAL PHYSICAL CHARACTERISTICS

**The physical characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of the classification(s). Reasonable accommodation may be made to enable an individual with qualified disabilities to perform the essential functions of a job, on a case-by-case basis.**

Frequent repetitive use of hand required: simple grasping, power grasping, fine manipulation. Occasional: standing, bending, walking, squatting, kneeling, pushing, pulling, reaching above/below shoulder level and twisting of neck and waist. May have to carry boxes of paper and gas cylinders weighting up to 60 lbs. for approximately 30 feet. The incumbent in this class must have adequate color vision to perform duties.

#### ■ SPECIAL NOTES, LICENSES, OR REQUIREMENTS

##### License

A valid California class C driver's license, which must be maintained throughout employment in this class, is required at time of appointment, or the ability to arrange necessary and timely transportation for field travel. Employees in this class may be required to use their own vehicle.

Certification/Registration

None Required.

Working Conditions

Works outdoors in all types of weather conditions. Works with electrical currents up to 7,000 volts, exposed to flammable and compressed gases. May be occasionally exposed to excessive noise of pumps and compressors.

Background Investigation

Must have a reputation for honesty and trustworthiness. Misdemeanor and/or felony convictions may be disqualifying depending on type, number, severity, and recency. Prior to appointment, candidates will be subject to a background investigation.

Probationary Period

Incumbents appointed to permanent positions in this class shall serve a probationary period of 6 months (Civil Service Rule 4.2.5).

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